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CENTRAL INTELLIGENCE AGENCY

25 October 1949

INTELLIGENCE MEMORANDUM NO. 225/1

SUBJECT: ESTIMATE OF STATUS OF ATOMIC WARFARE IN THE USSR (Category No. 5)

Category as a Whole:

The top priority accorded to the Soviet atomic energy program, which presumably started in 1945, has resulted in the production of a nuclear explosion around the first of September 1949. This is in contrast to the 1 July 1949 estimate of the Joint Nuclear Energy Intelligence Committee, which gave mid-1950 as the earliest possible date by which the Soviets might be expected to produce an atomic bomb. [redacted]

ESTIMATE BY TECHNICAL OBJECTIVES

AW-1

The explosion, somewhere in Siberia around the first of September 1949, of a Soviet atomic bomb probably made of plutonium confirms the previous conclusion of the Joint Nuclear Energy Intelligence Committee that the Soviet atomic energy project was directed toward the production of plutonium bombs. The USSR must have had at least one production pile in operation since about October 1948 in order to produce the fissionable material necessary to cause the explosion. However, there are some indications that there may be a second pile in operation now.

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with possibly a third coming into operation in the near future. It is believed that the first and possibly the second piles are graphite-moderated. There is evidence of Soviet interest in uranium isotope separation on a laboratory scale, but there is no information on the construction of large-scale production facilities. (Secret)

AW-4

No information available.

AW-5a

There is no reliable indication that the Soviets are generally equipping civilian and military units with instruments for the detection of radioactivity. There is known to be a sizeable production of field counters in Germany and Czechoslovakia, but as far as can be determined, these are destined mostly for use in uranium mining operations. However, there is an unconfirmed rumor that the counters from one German concern were for distribution to the Soviet Army down to company level. (Secret)

AW-5b

Information of unknown reliability dated October 1948 states that all ranks of the Soviet Army, Air Force, and Navy were being instructed in the effects of the atomic bomb, and trained in defense against them, that this training scheme was assuming vast proportions, that whole districts had already been drawn into it, and it covered the civil population as well. A recent report states that the civilian population of one town was given instruction on how to behave when atomic bombs

are dropped, but no details are available. There have been no reliable reports of the manufacture or distribution of film badges, dosimeters, special clothing, or other protective equipment. ~~(Secret)~~

AM-5a

No information available.

AM-6

No information available.

AM-7

No information available.

AM-8

There is no information indicating that the USSR is engaged in a project aimed at producing radiological warfare agents. Since the Soviets now almost certainly have one or more production piles, the fission products from these could be used to contaminate small areas. It is believed that they will not have constructed piles capable of producing militarily significant quantities of specific agents until at least 1952. ~~(Top Secret)~~